

LINEAR PERFLUOROPOLYETHERS HAVING AN IMPROVED THERMOOXIDATIVE STABILITY

ABSTRACT

Linear perfluoropolyethers of formula: $T-O(CF_2O)_n(CF_2CF_2O)_m(CF_2CF_2CF_2O)_r(CF_2CF_2CF_2CF_2O)_s-T_1 \quad (I)$ wherein n, m, r, s are integers such that the polymer number average molecular weight is comprised between 700 and 100,000 and the n/(n+m+r+s) ratio ranges from 0.05 to 0.40, and respective preparation process by addition of a peroxidic

$$T_4 - O(CF_2O)_n$$
, $(CF_2CF_2O)_m$, $(O)_h - T_5$ (III)

perfluoropolyether of formula (III):

having a PO from 1.8 to 4, to a perfluoropolyether oil preheated at a temperature comprised between 150°C and 250°C and subsequent exhaustive fluorination of the obtained compound.